

BEGONIA NOMENCLATURE NOTES. 5

Begonia peltata Otto & Dietrich and Related Species

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The Species of the Begoniaceae, edition 2, 1974, by Fred A. Barkley and Jack Golding is a compendium of the published names and the published synonymy for the species and therefore continues the errors from the literature. I have been reviewing the literature to verify or correct the citations and their synonymy. My determinations will be published in this series, "*Begonia* Nomenclature Notes."

This review corrects the confusion in the literature with the names *Begonia peltata*, *Begonia incana*, *Begonia coriacea*, *Begonia hasskarlii* and other related species.

Begonia peltata Otto & Dietrich

The name *Begonia peltata* was given to a species from Mexico by Otto & Dietrich in *Allgemeine Gartenzeitung* 9(8): 58, published Feb. 20, 1841.

This same species was named *Begonia incana* by Lindley in the *Edwards' Botanical Register*, Vol. 27, in "Miscellaneous Notices", page 39, also published in 1841. The first page of "Miscellaneous Notices" is dated January 1841 and this probably is the reason why some authors thought the name *Begonia incana* Lindley had priority over *Begonia peltata* of Otto & Dietrich. But a closer examination of Volume 27 reveals footnotes on the bottom of some pages indicating that the "Notices" were first published in monthly installments. The date May 1841 is on the bottom of page 35, and June 1841 is on the bottom of page 43 establishing the date of publication for *Begonia incana* Lindley on page 39 as May 1841.

Therefore, the correct name for this species is *Begonia peltata* Otto & Dietrich and *Begonia incana* Lindley is a synonym, as suggested by E. J. Alexander in *Addisonia* 23(4): 53, pl. 763 (1959), and cited by

L. B. Smith & B. G. Schubert, *Fieldiana*, Bot. 24(1): 177 (1961).

J. F. Klotzsch in *Monatsbericht der Königl. Preuss. Akademie der Wissenschaften zu Berlin* (1954), and his *Begoniaceen-Gattungen und Arten* (1855) divided the previous genus *Begonia* into forty-one different genera. On page 69, he gave *Rachia peltata* Klotzsch as the new name for *Begonia peltata* Otto & Dietrich, and *Rachia incana* Klotzsch as the new name for *Begonia incana* Lindley with *Begonia auriformis* Van Houtte as a synonym.

A. de Candolle (and other botanists) did not accept the separation of the genus *Begonia* to the many genera proposed by Klotzsch, but he did use his grouping for sections and subgenera.

A. de Candolle, in his *Prodromus* 15 (1): 326 (1864) listed *Begonia incana* Lindley and cited in the synonymy *Begonia peltata* Otto & Dietrich and *Rachia peltata* Klotzsch. On page 327 with this diagnosis [translated] "The exterior of the sepals [tepals] of the masculine flower, glabrous or almost glabrous" he established the new variety *Begonia incana* var. *auriformis*, listing as synonyms: *Begonia auriformis* Hort. Van Houtte and *Rachia incana* Klotzsch.

Since *Begonia incana* is not the correct name for this species, I transfer this variety to *Begonia peltata* var. *auriformis* (A. DC.) Golding *comb. nov.*

Homonyms of *Begonia peltata*

Begonia peltata Sesse & Mocino was published in *Flora Mexicana* ed. 2: 219 (1894). Smith and Schubert in "Studies in the Begoniaceae" *Contributions Gray Herbarium* 154: 27, 30 (1945) identified the *Begonia peltata* Sesse & Mocino as *Begonia nelumbiifolia* Schlechtendahl & Chamisso 1830.

A. D. E. Elmer published the name *Begonia peltata* Elmer for a species from the Philippine Islands in *Leaflets of Philippine Botany* 7: 2556 (1915). E. D. Merrill in *The Philippine Journal of Science Bot.* 13 (1): 39 (1918) following the description of *Begonia tayabensis* Merrill, comments concerning the Philippine *Begonia* species with peltate leaves and gave the new name *Begonia elmeri* Merrill for *Begonia peltata* Elmer, since *Begonia peltata* Otto & Dietrich had priority for the name.

Begonia kellermanii C. DC.

Begonia kellermanii C. DC., *Smithson, Misc. Coll.* 69(12): 1 (1919) was listed by Smith & Schubert, *Fieldiana, Bot.* 24: 177 (1961) as a synonym of *Begonia peltata* Otto & Dietrich.

Casimir de Candolle, in his original citation stated (translated) "It differs from *Begonia incana* Lindl. [*Begonia peltata* O&D] by the much smaller leaves, more ovate and long acuminate, and with smaller capsule and glabrous flowers."

They look similar as dried herbarium material, but having observed both species growing in my garden, I would add that they also differ by their habit. Both have thick stems with short internodes, but *Begonia peltata* O&D is a low-growing plant whose large round leaves and shorter internodes makes it compact. *Begonia kellermanii* C. DC. grows much taller and with smaller ovate leaves appears more slender.

After reading my preliminary manuscript, Dr. L. B. Smith checked the type of *Begonia kellermanii* C. DC. at the U.S.N.H. and noted that it has stout stems and short internodes. He questioned whether there really is enough difference in the living plants to be of specific value, but he did advise that he would reinstate *Begonia kellermanii* C. DC. on the basis of the glabrous tepals noted by C. de Candolle.

Begonia coriacea Hasskarl

A species from Java was named *Begonia peltata* by J. K. Hasskarl in *Tijdschrift* 10: 133 (1843) and he described it on page 192 of *Cat. Hort. Bot. Bogor.* (1844). On page 311 of the same 1844 publication, Hasskarl, having noted the 1841 use of *Begonia peltata* by Otto & Dietrich changed the name of his species to *Begonia coriacea* Hasskarl.

Zollinger and Moritzi in *Systematisches Verzeichniss* 31 (1846) in a list of *Begonia* renamed Hasskarl's *Begonia peltata* to *Begonia hasskarlii* Zoll. & Mor. They and many later authors apparently missed Hasskarl's own correction of the name to *Begonia coriacea*.

B. C. Seemann in *The Botany of the Voyage of H.M.S. Herald* 128 (1854) listed as No. 440, *Begonia hernandiifolia* Hook. *Bot. Mag. t.* 4676, Western Vera-guas.

When Klotzsch in his *Begoniaceen* 74 (1855) transferred *Begonia coriacea* Hasskarl to *Mitscherlichia coriacea* Klotzsch, he listed in the synonymy, *Begonia hernandiifolia* Hooker, Bot. Mag. pl. 4676 (1852) with the note that it was not from Central America as erroneously stated in the *Botanical Magazine*.

In "Further Additions and Corrections," June 8, 1857, on page 254 of the *Botany of the Voyage of H.S.S. Herald*, Seemann noted that the No. 440 *Begonia hernandiifolia* Hooker = *Begonia coriacea* Hasskarl" is a native of Java, to be excluded from the 'Flora of the Isthmus of Panama.' " He stated further that he had not sent seed of this plant from the Isthmus and there are no specimens of it in his collection.

A. de Candolle on page 339 of his *Prodromus* listed as a synonym under *Begonia glandulosa* A. DC., "*Begonia hernandiifolia* Seem. in h. Hook. et in Bot. Herald (sine descr.)." This cannot be correct and the synonym should be deleted.

F. Miquel used the name *Begonia junghuhniana* Miquel, for a species collected in Java, in part 4 of *Plantae Junghuhnianae* on page 418. The date of publication is not clear. It was probably intended to publish part 4 in 1855, the date on the title page, but the actual date of distribution was delayed. Stafleu, *Taxonomic Literature* 319 (1967) reported that early in 1857 part 4 had not yet appeared and that W. J. Hooker reviewed parts 1-4 in Nov. 1857, indicating the date of effective publication for part 4 was 1857. Miquel listed "*Begonia junghuhniana* Miq. in Herb. Jungh." as a synonym of *Mitscherlichia junghuhniana* Miquel in the *Flora Indiae Batavae* 1: 696 (1856). Backer & Van Brink, *Flora of Java* 309 (1963), listed *B. junghuhniana* as a synonym of *Begonia coriacea* Hasskarl.

S. H. Koorders, *Exkursionsflora Von Java* 644 (1912) listed, *B. junghuhniana* Miq. forma *acutifolia* Miq. Msc. in Herb. Lugd. Bat. While Koorders attributed this name to the Miquel manuscript, he did not give any description of this form. This citation cannot be considered effective publication, I have not found this name published anywhere else. Therefore, it is a *nomen nudum*.

A. de Candolle, in his *Prodromus* 15(1): 368, 390 (1864), at first listed the name *Begonia peltata* for two different species: on page 368 for the specimen of Schott in Herb. Vindob. of a species from Brazil, and on page 390 for the specimen from Java described by Hassk., *Cat. Hort. Bot. Bogor.* 192 (1844), non Otto & Dietrich, nec Schott. Later, in his "Addenda et Corrigenda" on page 517, he changed the name of the *Begonia peltata* on page 390 [incorrectly] to *Begonia hasskarlii* Zollinger & Moritzi (1846). The synonymy cited on page 390, included "*Begonia coriacea* Cat. Hort. Bogor. p. 311 (non Schott)." I do not understand why de Candolle did not accept the name change by Hasskarl of *Begonia peltata* to *Begonia coriacea*. Perhaps, since he added "non Schott" after the citation, he thought the name *Begonia coriacea* was used earlier by Schott. But I cannot find any record of Schott using this name.

Begonia coriacea Hasskarl is the correct name for the species from Java.

Begonia concinna Schott

The *Begonia peltata* (Schott in Herb. Vindob.) A. DC. on page 368 of *Prodromus* is not correct because of the earlier *Begonia peltata* Otto & Dietrich and must be changed. De Candolle listed in the synonymy *Begonia concinna* Schott in Spreng. Syst. Veg. (App.) 4: 408 (1827) with a question mark and the note (translated) "from the description with Schott's name published in Sprengel, not present in the herbarium of Vienna." The description of *Begonia concinna* Schott is for Schott's specimen labeled *Begonia peltata*. Even though Schott originally labeled his herbarium specimen *Begonia peltata*, the name he published for it in Sprengel, *Systema Vegetabilium* was *Begonia concinna* Schott, which is the correct name for this species.

Begonia tominana Golding

Begonia coriacea A. DC. was given in *Prodromus* 15(1): 286 (1864) for a species that was collected in the Tomina Province of Bolivia by Weddel. Because of the earlier *Begonia coriacea* by Hasskarl in 1844, this name is not correct. Therefore, I give this species the name *Begonia tominana* Golding, *nomen novum*.

Begonia micranthera var. *hieronymi* Smith & Schubert

A. Grisebach *Symbolae ad Floram Argentinam* 136 (1879) listed as No. 803, a *Begonia* he considered to be *Begonia coriacea* A. DC., but indicated some differences. Lindau in "Supplements No. 48" to the *Botanischen Jahrbuchern* 19: 14 (1894), listed "*Begonia coriacea* Griseb. (non D.C.), Symb. Arg. p. 136" as a synonym of his new species *Begonia hieronymi* Lindau.

After studying considerable herbarium material, Smith and Schubert did not accept *Begonia hieronymi* Lindau as a separate species and in their "Revision de las Especies Argentinas del Genero *Begonia*" in *Darwiniana* 5: 96. pl. 7 (1941), they determined it to be a variety, *Begonia micranthera* Grisebach var. *hieronymi* (Lindau) Smith & Schubert.

Begonia kingiana Irmscher

G. King in "Materials for a Flora of the Malay Peninsula," in the *Journal of the Asiatic Society of Bengal* 71 (2, 1): 62 (1902), used the name *Begonia hasskarlii* Zollinger & Moritzi for several specimens collected in Malay.

H. N. Ridley in the *Flora of the Malay Peninsula* 1: 860 (1922), also used the name *Begonia hasskarlii* for several specimens collected in Malay.

E. Irmscher in "Die Begoniaceen der Malaiischen Halbinsel" published in *Mitteilungen aus dem Institut für Allgemeine Botanik in Hamburg* 106 (1929), explained that both King and Ridley were incorrect in identifying the species collected in Malay as *Begonia hasskarlii* Zollinger & Moritzi and the specimens they had were actually of a new species, which he named *Begonia kingiana* Irmscher.

Begonia ignorata Irmscher

Ridley, Fl. Malay Penin. 1: 860 (1922), named a new variety *Begonia hasskarlii* var. *hirsuta* Ridley. Irmscher, Mitt. Inst. Bot. Hamburg 8: 97 (1929), determined that Ridley's variety was a new species different from his *Begonia kingiana* and he named it *Begonia ignorata* Irmscher.

SUMMARY OF CORRECT CITATIONS AND SYNONYMY

- Begonia auriformis* Van Houtte ex Klotzsch. Monatsb. Berl. Akad. 124. 1854; Begoniac. 69. 1855;
A. D.C. Prodrum 15(1): 327. 1864, pro syn.
= *Begonia peltata* var. *auriformis* (A.DC.) Golding
- Begonia concinna* Schott in Sprengel, Syst. Veg. (App.) 4: 408. 1827. Brazil.
Begonia peltata (Schott in Herb. Vind.) A.DC. 1859.
- Begonia coriacea* Hasskarl, Cat. Hort. Bot. Bogor. 192, 311. 1844; Pl. Jav. Rar. 239. 1848; Hort. Bogor. Descr. 328. 1858. Java.
Begonia peltata Hasskarl 1843, non Otto & Dietrich 1841.
Begonia hasskarlii Zollinger & Moritzi 1846.
Begonia hernandiifolia Hooker 1852.
Begonia hernandiifolia sensu Seemann 1854.
Mitscherlichia junghuhniana Miquel 1856.
Begonia junghuhniana Miquel 1857.
- Begonia coriacea* A. DC. Ann. Sc. Nat. IV. 11: 122. 1859; Prodrum 15(1): 286. 1864, non Hasskarl 1844.
= *Begonia tominana* Golding
- Begonia coriacea* (A.DC.) sensu Grisebach, Symb. Fl. Argent. 136. 1879; [= *Begonia hieronymi* Lindau, Bot. Jahrb. 19 (Beibl. 48): 14. 1894]; Smith & Schubert, Darwiniana 5: 96. pl. 7. 1941, non Hasskarl 1844.
= *Begonia micranthera* var. *hieronymi* (Lindau) Smith & Schubert 1941.
- Begonia hasskarlii* Zollinger & Moritzi, Syst. Verzeich. 31. 1846 [= *Begonia peltata* Hasskarl, Tijdschr. 10: 133. 1843; Cat. Hort. Bot. Bogor. 192, 311. 1844, non Otto & Dietrich 1841].
= *Begonia coriacea* Hasskarl 1844.
- Begonia hasskarlii* sensu King, J. Asia. Soc. Bengal 71 (2,1): 62. 1902; Irmscher, Mitt. Inst. Bot. Ham. 8: 106. 1929, non Zollinger & Moritzi 1846.
= *Begonia kingiana* Irmscher 1929.
- Begonia hasskarlii* sensu Ridley, Fl. Malay, Penins. 1: 860. 1922; Irmscher, Mitt. Inst. Bot. Ham. 8: 106. 1929, non Zollinger & Moritzi 1846.
= *Begonia kingiana* Irmscher 1929.

- Begonia hasskarlii* var. *hirsuta* sensu Ridley, Fl. Malay Penins. 1: 860. 1922; Irmscher, Mitt. Inst. Bot. Ham. 8:97. 1929.
= *Begonia ignorata* Irmscher 1929.
- Begonia hernandiifolia* Hooker, Bot. Mag. pl. 4676. 1852; Klotzsch, Begoniac. 74. 1855.
= *Begonia coriacea* Hasskarl 1844.
- Begonia hernandiifolia* Hort. Berol. ex Klotzsch, Monatsb. Berl. Akad. 125. 1854; Begoniac. 98. 1855, non Hooker 1852. pro syn.
= *Begonia nelumbilifolia* Schlechtendal & Chamisso 1830.
- Begonia hernandiifolia* sensu Seemann, Bot. Herald 128. 1854; 254. 1857.
= *Begonia coriacea* Hasskarl 1844.
- Begonia ignorata* Irmscher, Mitt. Inst. Bot. Hamburg 8: 97. 1929. Malaya.
Begonia hasskarlii var. *hirsuta* sensu Ridley, 1922.
- Begonia incana* Lindley, Bot. Reg. 27 (misc.): 39. May 1941.
= *Begonia peltata* Otto & Dietrich Feb. 1841.
- Rachia incana* Klotzsch, Begoniac. 69. 1855; [= *Begonia incana* var. *auriformis* A. DC. Prodr. 15(1): 327. 1864].
= *Begonia peltata* var. *auriformis* (A.DC.) Golding
- Begonia incana* var. *auriformis* A. DC. Prodr. 15(1): 327. 1864.
= *Begonia peltata* var. *auriformis* (A.DC.) Golding
- Begonia junghuhniana* Miquel, Pl. Jungh. (4, 1855): 418. 1857; Backer & Van Brink, Fl. Jav. 309. 1963.
= *Begonia coriacea* Hasskarl 1844.
- Mitscherlichia junghuhniana* Miquel, Fl. Ind. Bat. 696. 1856.
= *Begonia coriacea* Hasskarl 1844.
- Begonia junghuhniana* f. *acutifolia* (Miquel msc. in Herb. Lugd. Bat.) Koorders, Exkurs. Jav. 644. 1912, nomen nudum.

Begonia kellermanii C.DC. Smithson. Misc. Coll. 69
(12): 1. 1919. Guatemala

Begonia kingiana Irmscher, Mitt. Inst. Bot. Hamburg
8: 106. pl. 3. 1929. Malaya

Begonia hasskarlii sensu King 1902, non
Zollinger & Moritzzi, 1846.

Begonia hasskarlii sensu Ridley 1922, non
Zollinger & Moritzzi, 1846.

Begonia micranthera var. *hieronymi* (Lindau) Smith &
Schubert, Darwiniana 5: 96. pl. 7. 1941.

Begonia coriacea (A.DC.) sensu Grisebach 1879.

Begonia hieronymi Lindau 1894.

Begonia nelumbiifolia Schlechtendal & Chamisso,
Linnea 5: 604. 1830. Mexico

Begonia derycxiana Lemaire in Hortic. Univ.
5 (misc.): 355. 1844; A. DC. Prodr. 15
(1): 343. 1864.

Gireoudia nelumbiifolia Kl. Monatsb. Berl.
Akad. 125. 1854.

Begonia hernandiifolia Hort. Berol. ex Klotzsch
1854. non Hooker 1852. pro syn.

Begonia peltata Sesse & Mocino 1894, non Otto
& Dietrich.

Begonia caudilimba C. DC. Smithson. Misc. Coll.
69(12): 9. 1919; Smith & Schubert, Caldasia
4(16): 15. pl. 2. 1946.

Begonia peltata Otto & Dietrich, Allg. Gartenz. 9:58.
Feb. 1841; Alexander, Addisonia 23 (4): 53.
pl. 763. 1959; Smith & Schubert, Fieldiana, Bot.
24(1): 177. 1961. Mexico

Begonia incana Lindley May 1841.

Rachia peltata Klotzsch 1854.

Begonia peltata var. *auriformis* (A.DC.) Golding
Phytologia; A. DC. Prodr. 15 (1): 327. 1864.
Mexico

Begonia auriformis Van Houtte ex Klotzsch,
1854, pro syn.

Rachia incana Klotzsch 1855.

Begonia incana var. *auriformis* A.DC. 1864.

- Begonia peltata* Hasskarl, Tijdschr. 10: 133. 1843;
Cat. Hort. Bot. Bogor. 192, 311. 1844, non Otto
& Dietrich 1841.
= *Begonia coriacea* Hasskarl 1844.
- Rachia peltata* Klotzsch, Monatsb. Berl. Akad. 124.
1854; *Begoniaceae*. 69. 1955.
= *Begonia peltata* Otto & Dietrich Feb. 1841.
- Begonia peltata* (Schott in Herb. Vind.) A. DC. Ann.
Sci. Nat. IV. 11: 138. 1859; Prodr. 15 (1):
368. 1864, non Otto & Dietrich 1841.
= *Begonia concinna* Schott in Sprengel 1827.
- Begonia peltata* Sesse & Mocino, Fl. Mex. ed. 2: 219.
1894; Smith & Schubert, Contr. Gray Herb. 154:
27, 30. 1945, non Otto & Dietrich 1841.
= *Begonia nelumbiifolia* Schlechtendahl & Chamisso
1830.
- Begonia peltata* Elmer, Leaflets Philipp. Bot. 7: 2556,
1915; Merrill, Philipp. J. Sci. Bot. 13(1): 39.
1918, non Otto & Dietrich 1841.
= *Begonia elmeri* Merrill 1918.
- Begonia tominana* Golding, Phytologia. Bolivia
Begonia coriacea A. DC. Ann. Sc. Nat. IV. 11:
122. 1859, non Hasskarl 1844.

ACKNOWLEDGEMENT

I thank Dr. Lyman B. Smith and Carrie Karegeannes for their assistance with the preparations for this monograph and their critiques of my draft manuscript.